AMENDMENTS TO THE CLAIMS

The following is a complete, marked up listing of revised claims with a status identifier in parentheses, underlined text indicating insertions, and strikethrough and/or double brackets indicating deletions.

LISTING OF CLAIMS

1. (Currently Amended) A high-density recording medium including one or more recording layers, the recording medium comprising:

a lead-in area including ~~a control~~ disc information required for recording or reproducing data on or from the recording medium; and

a burst cutting area located at an inner area other than the lead-in area, the burst cutting area including a plurality of data ~~units;~~ units, ~~wherein additional~~ the disc information ~~is~~ also being redundantly included in at least one of the data ~~units,~~ units;

wherein the ~~additional~~ disc information ~~including~~ includes at least ~~a~~ medium type information that identifies ~~what kinds of recording layers are included~~ a type of recording layer in the recording medium.

2. (Previously Presented) The high-density recording medium according to claim 1, wherein the medium type information indicates that the recording medium is a writable medium or read-only medium.

3. (Previously Presented) The high-density recording medium according to claim 1, wherein each data unit is preceded by sync information.

4. (Currently Amended) The high-density recording medium according to claim 3, wherein the ~~additional~~disc information is recorded in a first data unit.

5. (Currently Amended) The high-density recording medium according to claim 1, wherein the ~~additional~~disc information is repeatedly recorded in each data unit.

6. (Presently Cancelled)

7. (Currently Amended) The high-density recording medium according to ~~claim 6~~ claim 1, further comprising:

a lead-out area having the control information.

8. (Currently Amended) The high-density recording medium according to claim 1, wherein the ~~additional~~disc information further includes layer information.

9. (Currently Amended) The high-density recording medium according to claim 8, wherein the ~~additional~~disc information further includes a sequence number to identify a data unit.

10. (Previously Presented) The high-density recording medium according to claim 8, wherein the layer information represents the number of layers included in the recording medium.

11. (Presently Cancelled)

12. (Currently Amended) The high-density recording medium according to claim 9, wherein the ~~additional~~disc information further includes an application indicator to indicate ~~a~~ use of ~~for a~~ copy protection system.

13. (Currently Amended) The high-density recording medium according to claim 1, wherein the ~~additional~~disc information further includes ~~a~~ reflectivity information, the reflectivity information indicating the reflectivity of the recording medium.

14. (Previously Presented) The high-density recording medium according to claim 13, wherein the reflectivity information is required for an optical power control or an automatic gain control when a data recording or reproducing operation is carried out.

15. (Previously Presented) The high-density recording medium according to claim 1, wherein the medium type information represents the type of a BD-ROM (BD-Read Only memory), a BD-R (BD-Recordable), or BD-RE (BD-Rewritable).

16. (Previously Presented) The high-density recording medium according to claim 1, wherein the data unit comprises a plurality of information bytes, the medium type information is included in at least one information byte.

17. (Previously Presented) The high-density recording medium according to claim 16, wherein the medium type information is included in the first information byte in each data unit.

18. (Currently Amended) A method for recording or reproducing data on or from a high-density recording medium including one or more recording layers, the method comprising:

~~identifying~~ reading disc information from at least one of ~~included in at least one data unit of~~ a burst cutting area and a lead-in area of the recording medium, the same disc information being recorded in both of the burst cutting area and the lead-in area, the disc information including at least ~~a~~ medium type information that identifies ~~what kinds~~ a type of recording ~~layers are included~~ layer in the recording medium; and

controlling a data recording or reproducing operation, based on the ~~identified~~ disc information.

19. (Currently Amended) The method according to claim 18, wherein the disc information further includes layer information to indicate the number of layers included in the recording medium, thereby identifying the number of layers of the recording medium.

20. (Currently Amended) The method according to claim 18, wherein the burst cutting area includes a plurality of data units, the disc information being included in at least one of the data ~~unit,~~ units, wherein the identifying step identifies the disc information by processing at least one of the data ~~unit~~ units.

21. (Currently Amended) The method according to claim 20, wherein the disc information is repeatedly included in each data unit.

22. (Previously Presented) The method according to claim 18, wherein the medium type information represents the type of a BD-ROM (BD-Read Only memory), a BD-R (BD-

Recordable), or a BD-RE (BD-Rewritable).

23. (Currently Amended) The method according to claim 18, wherein the disc information includes ~~a~~ reflectivity information of the recording medium, thereby controlling an optical power or an automatic gain for a recording or reproducing operation.

24. (Currently Amended) The method according to claim 18, wherein the identifying step identifies the disc information preferentially when the recording medium is loaded in a recording or reproducing apparatus.

25. (Currently Amended) The method according to claim 18, wherein the identifying step identifies the disc information in an early stage of recording or reproducing data on or from the recording medium.

26. (Previously Cancelled)

27. (Previously Cancelled)

28. (Previously Cancelled)

29. (Previously Cancelled)

30. (Previously Cancelled)

31. (Previously Cancelled)

32. (Previously Cancelled)

33. (Previously Cancelled)

34. (Previously Cancelled)

35. (Currently Amended) The method according to claim 18, wherein the disc information includes a sequence number to identify a data unit, thereby identifying the data unit that includes the disc information.

36. (Currently Amended) The method according to claim 18, wherein ~~the recording medium further comprises a lead-in area that includes information equal to the information of the burst~~ cutting area ~~followed by the lead-in area~~, the method further ~~comprising,~~ comprises:

moving an optical pickup to read ~~the information~~ data recorded on the burst cutting ~~area,~~ area; and

processing the data recorded in the burst cutting area to identify ~~then identifying~~ the disc information ~~in the burst cutting area~~.

37. (Currently Amended) The method according to claim 18, wherein the identifying step identifies the disc information at an early stage of a drive start-up procedure.

38. (Currently Amended) A method for recording or reproducing data on or from a high-density recording medium including one or more recording layers, the method comprising:

reading disc information ~~included~~ redundantly recorded in a burst cutting area and lead-in area of the recording medium, the burst cutting area being located at an inner area other than a lead-in area, the burst cutting area including a plurality of data units, the disc information being included in at least one of the data units ~~and~~ of the burst cutting area, the disc information including at least ~~a~~ medium type information that identifies ~~what kinds~~ a type of recording ~~layers are included~~ layer in the recording medium; and

controlling a data recording or reproducing operation, based on the ~~read~~ disc information.

39. (Currently Amended) The method according to claim 38, wherein each data unit comprises a plurality of information bytes, the disc information being included in at least one of the information ~~byte~~ bytes of the data unit.

40. (Currently Amended) The method according to claim 38, wherein the disc information further includes layer information to indicate the number of layers included in the recording medium, thereby identifying the number of layers of the recording medium.

41. (Currently Amended) The method according to claim 40, further comprising:

processing ~~the read information~~ data included in at least one data unit to identify the disc information.

42. (Currently Amended) The method according to claim 41, wherein the disc information is repeatedly included in each data unit, wherein the processing step processes ~~the read information~~ data included in each data unit to identify the disc information.

43. (Previously Presented) The method according to claim 38, wherein the medium type information represents the type of a BD-ROM (BD-Read Only memory), a BD-R (BD-Recordable), or a BD-RE (BD-Rewritable).

44. (Currently Amended) The method according to claim 38, wherein the disc information includes ~~a~~ reflectivity information of the recording medium, thereby controlling an optical power or an automatic gain for a recording or reproducing operation.

45. (Currently Amended) The method according to claim 38, wherein the disc information includes a sequence number to identify a data unit, thereby identifying the data unit that includes the disc information.

46. (Previously Presented) The method according to claim 38, wherein the reading step reads the disc information preferentially when the recording medium is loaded in a recording or reproducing apparatus.

47. (Currently Amended) The method according to claim 38, wherein the reading step reads the disc information in early stage for recording or reproducing data on or from the recording medium.

48. (Currently Amended) The method according to claim 38, wherein the reading step reads the disc information at early stage of drive start-up procedure.

49. (Currently Amended) The method according to claim 38, wherein ~~the lead-in area includes information equal to the information of the burst cutting area,~~ the method further ~~comprising,~~comprises:

moving an optical pickup to first read ~~the information~~ data recorded on the burst cutting area; and

processing the data recorded in the burst cutting area to identify the disc information.

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